UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,506	08/27/2001	Yoshio Nitta	Q65971	2893

7590 05/05/2005		EXAMINER
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ART UNIT	PAPER NUMBER
2663	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/938,506	NITTA
	Examiner	Art Unit	
	Christopher P. Heinrichs	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _5/19/2004_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-27_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-8,10,12 and 14-27_ is/are rejected.

7) ☒ Claim(s) _9,11 and 13_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _27 August 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _8/27/01&03,~~8/20/04~~. 10/7/04_

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 6 and 22 are objected to because of the following informalities: "VTN"

used to identify a Virtual Personal Network should read "VPN". Appropriate correction

is required.

2.   Claims 11 and 13 objected to because of the following informalities: Claim 11

cites a second table but there is no first table claimed in its parent claims. Claim 13

cites a third table but there is no first or second table in its parent claims. Appropriate

correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

5.   Claim 23 recites the limitation "said QoS" in the last line of the claim. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-2, 7-8, 10, 12, 14-15, 18-20, and 23-27 are rejected under 35

U.S.C. 102(e) as being anticipated by U.S. Patent #6,775,267 B1 to Kung et al.

8.   With regard to claim 1, Kung discloses a communication system (fig 1)

comprising a quality determining unit (call manager, fig 2 item 218) which determines a

QoS (network resources, col 29 lines 23-27), a gateway (figs 1, 3 and 4, item 300)

which transfers an IP datagram (with the network topology described in col 18 lines 42-

45, "gateway directly into an IP network," any data sent from the gateway to the quality

determining unit will be embedded in an IP datagram, including the protocol signal

representing off-hook, specifically stated in col 15 lines 8-10) at said QoS (datagram

contains called party address data, and can be transferred with "other data" as

described in col 28 lines 64-67, wherein other data comprises "home video or sequence

of digital images" col 30 lines 27-29), and a user fee determining unit (accounting

gateway, fig 2 item 240) which determines a user fee for said IP datagram based on

said QoS (col 16 lines 15-26, wherein the usage records stored by the accounting

gateway include quality of service, and the usage records are used by the billing centers

to which they are forwarded for determining user fee).

9.   With regard to claim 2, Kung fully discloses all aspects of the invention of claim 1

and further discloses that said gateway transfers a group of IP datagrams (all

datagrams carrying protocol signals of fig 5) including said IP datagram, and said QoS

includes a priority for said IP datagram (said IP datagram is transferred with "other data"

as noted above, which is home video and subject to said QoS) in the transfer of said

group of datagrams (the other datagrams are not described as being transferred with

said other data).

10.   With regard to claim 7, Kung discloses all aspects of the invention of claim 1,

specifically determining of QoS. It states in col 30 lines 27-28 that the "user may

request a greater data rate" which shows interaction between the gateway (through

which the user communicates) and the quality determining unit. It is established in the

rejection of claim 1 that the gateway and quality determining unit communicate using IP

datagrams, and it is an inherent function of a communication machine, such as said

gateway, to have an API to encapsulate information into an IP datagram, hence the

gateway disclosed by Kung is provided with an API.

11.   With regard to claim 8, Kung fully discloses all aspects of the invention of claim 1

and further discloses the system wherein said gateway detects a protocol (off hook

signal col 28 line 64, where such signaling is described as SS7 protocol in col 30 lines

15-18) used for the transfer (col 28 lines 61-64) of an IP datagram (with the network

topology described in col 18 lines 42-45, "gateway directly into an IP network," any data

sent from the gateway to the quality determining unit will be embedded in an IP

datagram, including the protocol signal representing off-hook, specifically stated in col

15 lines 8-10), and a quality determining unit (call manager 218, figs 5 and 2) which

determines a QoS (greater data rate, col 30 lines 27-28, and col 29 lines 23-27) based

on said protocol (col 30 line 29, wherein steps 1-11 describe the illustration of fig 5).

12.   With regard to claims 12 and 20, Kung fully discloses all aspects of the

inventions of claims 8 and 14. Said IP datagram inherently includes an IP address of

the user in the header of the IP datagram (source address). The user communicating

said IP datagram is the gateway, and said quality determining unit determines said QoS

based on said IP address because the "user" requests the data rate and the quality

determining unit (call manager) determines whether adequate network resources are

available to carry the call, which needs a source. The IP address inherent to said IP

datagram identifies the source, or user, for which the QoS is established, hence the IP

address is an element of the basis of the QoS since different quality will be provided to

different users.

13.   With regard to claim 14, Kung discloses a communication system (fig 1)

comprising a gateway (figs 1, 3 and 4, item 300) which transfers an IP datagram

(below), wherein said gateway detects a protocol (off hook signal col 28 line 64, where

such signaling is described as SS7 protocol in col 30 lines 15-18) used for the transfer

(col 28 lines 61-64) of an IP datagram (with the network topology described in col 18

lines 42-45, "gateway directly into an IP network," any data sent from the gateway to the

quality determining unit will be embedded in an IP datagram, including the protocol

signal representing off-hook, specifically stated in col 15 lines 8-10), and a quality

determining unit (call manager 218, figs 5 and 2) which determines a QoS (greater data

rate, col 30 lines 27-28, and "adequate network resources" of col 29 lines 23-27) based

on said protocol (col 30 line 29, wherein steps 1-11 describe the illustration of fig 5),

wherein said gateway transfers said IP datagram at said QoS (datagram contains called

party address data, and can be transferred with "other data" as described in col 28 lines

64-67, wherein other data comprises "home video or sequence of digital images" col 30

lines 27-29).

14.   With regard to claims 10 and 19. Kung fully discloses all aspects of the

inventions of claims 8 and 14, respectively, and further discloses that the quality

determining unit determines said QoS based on a ToS of said IP datagram (the IP

datagram is described in a procedure for a voice call, col 28-col 31, steps 1-19, which is

made apparent by the use of the voice gateway described in step 7, wherein "voice" is

the type of service that the data communicated with the QoS is based on and said QoS

is determined as described in the rejections of claims 8 and 14, respectively).

15.   With regard to claim 15, Kung fully discloses all aspects of the invention of claim

14 and further discloses that said gateway transfers a group of IP datagrams (all

datagrams carrying protocol signals of fig 5) including said IP datagram, and said QoS

includes a priority for said IP datagram (said IP datagram is transferred with "other data"

as noted above, which is home video and subject to said QoS) in the transfer of said

group of datagrams (the other datagrams are not described as being transferred with

said other data).

16.   With regard to claim 18, Kung discloses all aspects of the invention of claim 1,

specifically determining of QoS. It states in col 30 lines 27-28 that the "user may

request a greater data rate" which shows interaction between the gateway (through

which the user communicates) and the quality determining unit. It is established in the

rejection of claim 14 that the gateway and quality determining unit communicate using

IP datagrams, and it is an inherent function of a communication machine, such as said

gateway, to have an API to encapsulate information into an IP datagram, hence the

gateway disclosed by Kung is provided with an API.

17.   With regard to claim 23, Kung discloses a communication system (fig 1)

comprising a gateway (figs 1, 3 and 4, item 300) which transfers an IP datagram (below)

wherein said gateway detects a protocol (off hook signal, col 28 line 64, where such

signaling is described as SS7 protocol in col 30 lines 15-18) used for the transfer of said

IP datagram (with the network topology described in col 18 lines 42-45, "gateway

directly into an IP network," any data sent from the gateway to the quality determining

unit will be in an IP datagram, including the protocol signal representing off-hook), and a

user fee determining unit (accounting gateway, fig 2 item 240) which determines a user

fee for said IP datagram based on a QoS (col 16 lines 15-26, wherein the usage records

stored by the accounting gateway include quality of service, and the usage records are

used by the billing centers to which they are forwarded for determining user fee)..

18.   With regard to claim 24, Kung discloses all aspects of the invention of claim 23

and further discloses that the user fee determining unit determines said user fee based

on a ToS of said IP datagram (the IP datagram is described in a procedure for a voice

call, col 28-col 31, steps 1-19, which is made apparent by the use of the voice gateway

described in step 7, wherein "voice" is the type of service that the QoS is based on and

user fee is determined as described in the rejection of claim 23).

19.   Claim 25 is a method claim corresponding to apparatus claim 1 and, therefore, is

rejected under the same reasons set forth in the rejection of claim 1.

20.   With regard to claim 26, Kung discloses a communication method comprising

receiving an IP datagram (data units within conversation 523 of fig 5, received by GS

item 210 of fig 4 and transferred to VG item 232 of fig 4), detecting a protocol used for

transmitting said IP datagram (items 300, 116, 122, 218, 232, 234, 240 all detect

messages as depicted in fig 5, said messages part of SS7 protocol as described in col

30 lines 13-18), determining a QoS (col 29 lines 23-27), and transferring said IP

datagram at said QoS (data units within conversation 523 of fig 5, transferred to VG

item 232 of fig 4) (above noted data units are explained as follows: with the network

topology described in col 18 lines 42-45, "gateway directly into an IP network," any data

sent from the gateway to the quality determining unit will be in an IP datagram).

21.   With regard to claim 27, Kung discloses a communication method comprising

transferring an IP datagram (col 28 lines 61-64, the explanation of IP datagram

described in the rejection of claim 14) by a communication system (fig 1), detecting a

protocol used for transmitting said IP datagram (off hook signal, col 28 line 64, where

such signaling is described as SS7 protocol in col 30 lines 15-18), and determining a

user fee for use of said communication system based on said protocol ("call progress

change message", col 30 lines 24-36, and col 31 lines 13-28).

Claim Rejections - 35 USC § 103

22.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

23.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

  1.   Determining the scope and contents of the prior art.
  2.   Ascertaining the differences between the prior art and the claims at issue.
  3.   Resolving the level of ordinary skill in the pertinent art.
  4.   Considering objective evidence present in the application indicating
         obviousness or nonobviousness.

24.   Claims 3, 6, 16, and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent #6,775,267 to Kung et al. in view of U.S. Patent #

6,426,955 B1 to Gossett Dalton, Jr. et al.

25.   With regard to claims 3 and 16, Kung fully discloses all aspects of the inventions

of claims 1 and 14 but fails to disclose the aspects of claims 3 and 16. However,

Gossett Dalton, Jr. discloses a gateway (fig 1 item 105) that has a QoS (the higher the

quality of the conversation, col 15 lines 15-17) that includes a maximum allowable

difference (maximum delay a source gateway operator is willing to tolerate, col 15 lines

11-12, wherein the gateway operator is a quality determining unit) from a predetermined

delay time (the sum of the "other sources of delay" listed in col 15 lines 20-23, that

constitute delay but are ignored with respect to the maximum delay a source gateway

operator is willing to tolerate, as explained in col 15 lines 25-28) for transferring said IP

datagram (signal between calling party to called party, col 15 lines 14-15, wherein the

signal is inherently an IP datagram as can be seen from the course of travel in fig 1 item

104 to item 118, through the IP network). It would have been obvious to one ordinarily

skilled in the art at the time of the invention to combine the maximum delay time for

transferring said IP datagram dictated by a QoS determined by a quality determining

unit disclosed by Gossett Dalton, Jr with the gateway and quality determining unit

interaction disclosed by Kung to arrive at the invention of claims 3 and 16. The

motivation to do so would have been to maintain the quality of voice or video of the

other data (non protocol data) in said IP datagram.

26.   With regard to claims 6 and 22, Kung fully discloses all aspects of the inventions

of claims 1 and 20 but fails to disclose the aspects of claims 6 and 22. However,

Gossett Dalton, Jr. discloses a communication system as noted in the rejection of

claims 3 and 16 where the QoS includes provision of a VPN. The gateway (fig 1 item

105) disclosed by Gossett Dalton, Jr. communicates with a called party using the

services of service point (fig 1 item 112) which includes a routing engine (fig 1 item 110)

(see col 9 lines 36-41, col 10 lines 23-34). The routing engine is therefore an integral

part of the QoS, as there can be no service much less QoS without a route for sending

information from the source gateway to a destination gateway (fig 1 item 114a).

Gossett Dalton, Jr. further discloses the operation of the routing engine (col 10 lines 52-

57) and its using a VPN to communicate with a database. Therefore said QoS does

provide provision of a VPN. It would have been obvious to one ordinarily skilled in the

art at the time of the invention to include the provision of the VPN disclosed by Gossett

Dalton, Jr. with the communication system disclosed by Kung to arrive at the invention

of claims 6 and 22. The motivation to do so would have been to use the VPN to

conduct robust transactions with the SMDN (fig 2 item 190) disclosed by Kung used for

billing, just as Gossett Dalton, Jr. discloses using it for.

27.   Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent #6,775,267 to Kung et al. in view of U.S. Patent # 6,760,324 to Scott et al.

28.   Kung fully discloses all aspects of the inventions of claims 1 and 14 but fails to

disclose the aspects of claims 4 and 17. However Scott discloses a communication

system that comprises a gateway (fig 2 item 210) that includes a buffer that transiently

stores an IP datagram (voice over the unpredictable and some time limited bandwidth of

the internet (col 4 lines 59-60), wherein "voice" is made up of IP datagrams since Scott's

system is a VoIP system as described in the first few lines of the abstract) and a QoS (a

level of quality, col 4 lines 63-64) that includes the size of said buffer (dynamically

adjusts the size of the voice buffer). It would have been obvious to one ordinarily skilled

in the art at the time of the invention to combine the gateway with the dynamically sized

buffer disclosed by Scott with the communication system disclosed by Kung to arrive at

the invention of claims 4 and 17. The motivation to do so would have been to maintain

the quality of voice or video of the other data (non protocol data) in said IP datagram, as

Scott teaches that his device will do.

29.   Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent #6,775,267 to Kung et al. in view of U.S. Patent #6,721,306 to Farris et al.

30.   Kung discloses all aspects of the inventions of claims 1 and 20 but fails to

disclose the aspects of the inventions of claims 5 and 21. However, Farris discloses a

communication system (fig 2) that includes a gateway (fig 2 item 5) and a quality

determining unit (fig 2 item 81) in which the quality determining unit determines a QoS

(col 16 lines 1-4, wherein the quality is telephone services analogous to those offered

by a PBX, and said QoS is determined by virtue of the fact that the PC 81 engages in

voice communications), wherein said QoS includes provision of a firewall (col 15 lines

61-64). It would have been obvious to one ordinarily skilled in the art at the time of the

invention to include the firewall provision disclosed by Farris with the communication

system disclosed by Kung to arrive at the invention of claims 5 and 21. The motivation

to do so would have been to include the well-known protective properties of a firewall

with the communication system disclosed by Kung.

Allowable Subject Matter

31.   Claims 9, 11, and 13 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Conclusion

32.　　The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

　　　　a.　　　Kilkki et al. (U.S. Patent #6,167,030), Buffer-Based Traffic Measurement

　　　　System and Method for Nominal Bit Rate (NBR) Service.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christopher P. Heinrichs whose telephone number is

571-272-8397. The examiner can normally be reached on Monday through Friday,

8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free).

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